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KAWAMURA ICHIRO;
MOGAMITANI HIROYUKI;**Assignee: **SHOWA SHELL SEKIYU KK**
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Abstract:

NEW MATERIAL: A liquid crystal substance of benzyl phenylether structure shown by formula 1 [R is 1-20C alkyl or alkoxy; R* is optically active group and contains asymmetric carbon atom; X is group shown by formula II or formula III; I is 1-3; R' is H or lower alkyl; Y is -COO- or -O-; (A) and (B) are each independently group shown by formula IV-formula VII, etc.; further when (A) is group shown by formula VII, (B) and X are each single bond].

EXAMPLE: [(+)-1,1,1-Trifluoro-2-decyl-4-(4'-octyloxybiphenyl-4'-methyleneoxy) benzoate].

USE: Useful as a component for liquid crystal composition or electric display element having photochemical and chemical stability and large spontaneous polarization, showing high-speed response and applicable to optical switching, etc.














PREPARATION: For example, a compound shown by formula VIII as a starting raw material is processed through a compound shown by formula IX to give a compound shown by the formula I.

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Designated Country: **DE FR GB**Family: [Show 7 known family members](#)

Forward References:

PDF	Patent	Pub.Date	Inventor	Assigne	Titl
	US6267910	2001-07-31	Hayashi; Hitoshi	Nippon Soken, Inc.	Antiferroelectric liquid c composition
			Mine;	Mitsubishi Gas	Optically active second

	US6239316	2001-05-29	Takakiyo	Chemical Company Inc	alcohol and process for production thereof
	US6133469	2000-10-17	Mine; Takakiyo	Mitsubishi Gas Chemical Company	Anti-ferroelectric liquid c compound
	US6129859	2000-10-10	Hijikata; Yoshimasa	Nippon Soken, Inc.	Antiferroelectric liquid c composition
	US6103517	2000-08-15	Mine; Takakiyo	Mitsubishi Gas Chemical Company	Process for the product optically active alcohol; novel optically active alk
	US6002042	1999-12-14	Mine; Takakiyo	Mitsubishi Gas Chemical Company, Inc.	Liquid crystal compound
	US5976409	1999-11-02	Mineta; Hiroshi	Mitsubishi Gas Chemical Company, Inc.	Swallow-tail-shaped liquid crystal compound
	US5972242	1999-10-26	Takigawa; Kenji	Denso Corporation	Smectic liquid crystal composition and liquid c display
	US5968413	1999-10-19	Mine; Takakiyo	Mitsubishi Gas Chemical Company, Inc.	Anti-ferroelectric liquid c compounds
	US5955001	1999-09-21	Takigawa; Kenji	Nippon Soken, Inc.	Antiferroelectric liquid c composition and liquid c indicating element
	US5942646	1999-08-24	Mine; Takakiyo	Mitsubishi Gas Chemical Company, Inc.	Optically active alcohol process for the product thereof
	US5723069	1998-03-03	Mineta; Hiroshi	Mitsubishi Gas Chemical Company, Inc.	Anti-ferroelectric liquid c compound and anti-ferro liquid crystal composition
	US5716545	1998-02-10	Kikuchi; Katsuhide	Nippon Soken, Inc.	Antiferroelectric liquid c composition
	US5705094	1998-01-06	Takeuchi; Akira	Nippon Soken, Inc.	Antiferroelectric liquid c composition and liquid c display element using th
	US5700392	1997-12-23	Kikuchi; Katsuhide	Nippon Soken, Inc.	Antiferroelectric liquid c composition
	US5676881	1997-10-14	Takigawa; Kenji	Nippon Soken Inc.	Antiferroelectric liquid c composition
	US5330678	1994-07-19	Okabe; Nobuhiro	Showa Shell Sekiyu Kabushiki Kaisha	Liquid crystal compound

? Other Abstract Info:

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